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DOCKET NO:B0192.70026US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.:	6,770,190 B1
Issue Date:	August 3, 2004
Patentee:	Milanovski, et al.
Serial No:	09/763,345
Confirmation No:	4651
Int'l. Filing Date	August 24, 1999
For:	METHOD OF ELECTROCHEMICAL ANALYSIS OF AN ANALYTE

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 6th day of October, 2004.

June Watson

June Watson

Mail Stop Certificate of Correction
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following document(s):

- [X] **Request for Entrance of Certificate of Correction Under 35 U.S.C. §254 & §255**
- [X] **Certificate of Correction - Form PTO-1050**
- [X] **Copy of pertinent pages from U.S. Patent No. US 6,770,190 B1**
- [X] **Return Receipt Postcard**

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (617) 646-8000, Boston, Massachusetts.

No fee is enclosed. If a fee is necessary, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,
Milanovski, et al., Patentee

By: John R. Van Amsterdam

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Docket No. B0192.70026US00
Date: October 6, 2004
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REQUEST FOR ENTRANCE OF CERTIFICATE OF CORRECTION
UNDER 35 U.S.C. §254 and §255

Sir/Madam:

Patentee respectfully requests the correction of errors in the printing of the above-captioned patent. Specifically, claim 40 has typographical errors made by the Patent Office. Please correct as follows: In column 40, line 9, the second occurrence of "the" should be deleted.

Patentee points out that the corrections requested does not involve change in the patent that constitutes new matter or would require reexamination, and therefore, respectfully request that a certificate of correction be issued. Patentee encloses a copy of the issued patent with the errors highlighted. Since the error was made by the Patent Office, it is respectfully submitted that no fee is due. However, if the Examiner deems a fee necessary, the fee may be charged to the account of the undersigned, Deposit Account No. 23/2825. Should any questions arise concerning the foregoing, please contact the undersigned at the telephone number listed below.

For the reasons stated above, Patentee respectfully requests entrance of the enclosed Certificate of Correction.

Respectfully submitted,
Milanovski, et al., Patentee

By: John R. Van Amsterdam

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Docket No. B0192.70026US00
Date: October 6, 2004
xNDD

18 OCT 2004

829324.1

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : US 6,770,190 B1

DATED : August 3, 2004

INVENTORS : Milanovski, et al.

It is certified that an error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

should read:

In Column 40, line 9, delete the second occurrence of "the".

MAILING ADDRESS OF SENDER:

John R. Van Amsterdam
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Boston, Massachusetts 02210-2211

PATENT NO. US 6,770,190 B1

18 OCT 2004

Form PTO-1050

(a) providing a sensing electrode having an electroconductive polymer coating, the coating having immobilized therein or adsorbed thereto receptors which are capable of binding to the desired analyte to be detected in the sample;

(b) contacting the sensing electrode with a test solution comprising the sample so that the said analyte binds to said immobilized or adsorbed receptors;

(c) contacting the sensing electrode with a solution comprising secondary receptors capable of binding to said analyte at a site spatially distinct from the site of binding to immobilized or adsorbed receptors, said secondary receptors being conjugated with an enzyme;

(d) monitoring the electric potential difference between the sensing electrode of part (c) and a reference electrode when both are immersed in an electrolyte; and

(e) monitoring the electric potential difference between the sensing electrode of part (d) and a reference electrode following exposure to an electrolyte comprising the substrate for said enzyme.

34. A method as claimed in claim **33** wherein the enzyme is capable of converting a substrate which has no detectable effect on the redox composition of the electroconductive polymer coating of the sensing electrode to a product capable of directly or indirectly affecting the redox composition of the said electroconductive polymer coating.

35. A method as claimed in claim **34** wherein the enzyme is a peroxidase.

36. A method as claimed in claim **34** wherein the product capable of indirectly affecting the redox composition of the electroconductive polymer membrane causes a change in the pH of the electrolyte of part (e).

37. A method as claimed in claim **36** wherein the enzyme is a urease.

38. A method as claimed in claim **33** wherein the enzyme is capable of converting a substrate which has no detectable effect on the redox composition of the electroconductive polymer coating of the sensing electrode to a product which is a substrate for a second enzyme, the action of the second enzyme generating a second product which directly or indirectly affects the redox composition of the electroconductive polymer coating of the sensing electrode.

39. A method as claimed in claim **33** wherein the enzyme is capable of converting a substrate which directly affects the redox composition of the electroconductive polymer coating of the sensing electrode to a product which has no detectable effect on the redox composition of the said electroconductive polymer coating.

40. A method of electrochemical detection of an analyte in a sample, which method comprises the steps of:

(a) providing a sensing electrode having an electroconductive polymer coating, the coating having immobilized therein or adsorbed thereto receptors which are capable of binding to the desired analyte to be detected in the sample;

(b) contacting the sensing electrode with a test solution comprising the sample so that the desired analyte to be detected in the sample binds to said immobilized or adsorbed receptors;

(c) contacting the sensing electrode with a solution comprising competing molecules capable of binding to said immobilized or adsorbed receptors, said competing molecules being conjugated with an enzyme;

(d) monitoring the electric potential difference between the sensing electrode of part (c) and a reference electrode when both are immersed in an electrolyte; and

(e) monitoring the electric potential difference between the sensing electrode of part (d) and a reference electrode following exposure to an electrolyte comprising the substrate for said enzyme.

41. A method of electrochemical detection of an analyte in a sample, which method comprises the steps of:

(a) providing a sensing electrode comprising an electrically conductive electrode coated with a layer of electroconductive polymer with molecules of avidin or streptavidin immobilized therein or adsorbed thereto, said avidin or streptavidin molecules being attached to receptor molecules capable of binding the analyte to be detected attached via a biotin/avidin or biotin/streptavidin binding interaction;

(b) contacting the sensing electrode with a test solution comprising the sample so that said desired analyte binds to said immobilized or adsorbed receptor molecules;

(c) monitoring the potential of the sensing electrode relative to a reference electrode when both are immersed in an electrolyte; and

(d) monitoring the potential difference of the sensing electrode relative to the reference electrode following a change in the ionic strength or composition of the electrolyte at constant pH.

42. A method as claimed in claim **41** wherein the analyte to be detected is a nucleic acid and the receptor molecules are oligonucleotides.

* * * * *